VII. — *The Real Nature of Dissimilation*

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The facts relating to the process of dissimilation are very well known. Even during the period when the attention of the philologist was almost exclusively concentrated upon the phonetic laws proper, one used to mention in the final chapter, dealing with phonetic accidents, various changes such as the following: Lat. *peregrinus* > Vulg. Lat. *pelegrinus* > Fr. *pèlerin*, Eng. *pilgrim;* Lat. *turtur* > Eng. *turtle;* Lat. *marmor* > Eng. *marble;* Lat. *rarus* > Sp. *rado, ralo;* Fr. *corridor* > Russ. *kolidor;* Popular Fr. *ecolomie, carcul, limero*, etc. In more recent times increased attention has been given to these facts. Grammont has made an ample collection of them in his startling little book on *La dissimilation consonantique dans les langues indo-européennes et dans les langues romanes* (Dijon, 1895), while Meringer, *Versprechen u. Verlesen*, p. 88, has gathered a large collection of such forms from his own vernacular. Curiously enough no satisfactory explanation of the phenomenon has yet been given, as Mr. Sturtevant very sensibly observes in his *Phonetic Change*, a book published only two years ago.[1] Brugmann was obliged to make the same confession in his *Kurze vergleichende Grammatik der indogermanischen Sprachen.*[2] This, however, did not prevent him from proposing an elaborate explanation which comes to this: Dissimilation is an effort of the speaker to get out of the discomfort arising from the confusion produced in his mind when the same sound is repeated twice in a short interval. In fact he says else-

[1] P. 53: "The exact manner of the interference with the right pronunciation of sounds in case of dissimilation is not fully understood."

[2] P. 40 (1902): "Das Wesen der Dissimilation ist noch nicht genügend aufgeklärt."

where[3] that language has a *horror aequi* just as nature, according to the ancient physicists, had a *horror vacui*. This Latin phrase does not however make the case much clearer, and is hardly better than a *merus flatus vocis*, because innumerable cases of assimilation in speech and alliteration in verse rather point to an *amor aequi*.[4]

Wundt, *Die Sprache*[3], Part. I, p. 436, in spite of his impressive psychological apparatus, is no more successful than the other men previously mentioned. He proposes to regard dissimilation merely as a peculiar instance of the very well-known phenomenon of contamination. *Rarus* has become *radus*, *peregrinus* has been changed into *pelegrinus*, because in the mind of the speaker using these words there lingered words of kindred meaning, containing *d* or *l* or rather a series *r–d* or *l–r*.[5] This is to be rejected because, while contamination is found with all possible sounds and in the most varied manner, dissimilation is much more frequent with some sounds, like *l*, *r*, *m*, *n*, etc., than with others; and it introduces only a slight change (*r* to *l*, *n* to *l*, *b* to *v*, etc.). In most cases of contamination the contaminating word is easily discoverable: *gravis* > *grevis* on account of *levis*, *reddere* > *rendre* on account of *pre(he)ndre*, etc., while our imagination only exceptionally provides terms that might possibly have acted upon the words in which real dissimilation took place. Moreover, this theory does not account for a great number of cases in which a sound has been entirely lost (dissimilating elision) such as Vulg. Lat. *agustus* for *augustus*, It. *propio* for *proprio*, Fr. *viande* for Lat. *vivenda*, etc.

Any explanation proposed for the phenomenon of dissimilation should account for the following circumstances:

1. Dissimilation and assimilation are closely associated.

[3] Cf. Sturtevant, *op. cit.* p. 53.

[4] Alliteration is practiced every day, to the great satisfaction of the speakers, in slogans and mottoes, such as 'food for fighters,' 'home or Hun,' 'it's a feat to fit feet,' etc.

[5] This explanation is reproduced in L. Bloomfield's *Introduction to the Study of Language*, p. 283.

They affect the same sounds and the same categories of words; and it is not at all unusual to find words which have undergone in turn both changes, for example: Lat. *vervex* > *verbex* > *berbex* (Fr. *brebis*); Lat. *vervactum* > *bervactum* (Sard. *barvattu*) > *berbactum* (Sp. *barbecho*); Lat. *querquedula* > *cerquedula* > *cercedula* (Fr. *sarcelle*, 'teal'); Lat. *morbus* > *mormo* > Cat. *vorm*, Prov. *vorma*. There is in both processes the same sporadicity, the same capriciousness, the same recurrence, etc.

2. Dissimilation through the change of sounds is no less closely associated with dissimilation through elimination (dissimilating elision). Here again the sounds affected are the same, and moreover, the conditions in which the processes work are identical: Gr.* φλαυλος > φλαῦρος and φαῦλος; Lat. *fragrantem* > Fr. *flairant*, Sp. *fragante;* Lat. *marmor* > Vulg. Lat. *mamor*, Eng. *marble;* Lat. *arbor* > Sard. *abra*, Sp. *arbol;* Lat. *vervactum* > Fr. *guéret* (from *weractum*): Sard. *barvattu*. In Vulgar Latin there has been a tendency to eliminate a pretonic vowel identical with the accented one, as in the following: Lat. *augustus* > Vulg. Lat. *agustus* (It. *agosto*); Lat. *augurium* > Vulg. Lat. *agurium* (O. Fr. *eür*); Lat. *cerebrum* > Vulg. Lat. *crebrum* (Rum. *crieri*); Lat. *palanca* > Vulg. Lat. *planca* (Fr. *planche*). In the same way one finds the pretonic vowel changed in Lat. *vicinus* > Vulg. Lat. *vecinus* > Sp. *vecino;* Lat. *sororem* > Vulg. Lat. *serore* > O. Fr. *seror*.

3. Dissimilation, like assimilation, being an accident — sporadic and sudden — implies a period of transition during which the unchanged form is heard as often and even more often than the other. The people have had time to make their choice. It is clear enough why in the long run inertia has given the victory to *chercher* over *sercher*, *verve* over *verbe*, but there must also be a reason why, inversely, *pelegrinus* has replaced *peregrinus*, and why Lat. *miser*, *caesaries* have been preferred to **mirer*, **caeraries*, in which intervocalics had obeyed the general law. A reason should be given for the hearer's instinctive selection.

Starting from these data, I suggest the following explanation:

Language is made out of contrasts.[6] The elements of language (words, forms, sounds) answer the purpose of speech in proportion as they are distinguishable from one another. The sharper the contrast the more vivid is the perception, the surer the remembrance, and the easier the reproduction. If the difference is less striking, the images of prospective articulation, forms, etc., coexisting in a sentence, a phrase, a word, as they are visualized by the speaker before uttering them, will be more confused; they will overlap one another, cover one another to a certain extent.

On the other hand, the sureness, the exactness, the readiness of an articulation, depends greatly on the vividness of the image that commands it. Troubles, therefore, will arise when the distinction is not sharp enough. If two articulations coincide in all their movements — except one, — there will be a real difficulty in keeping wide awake the consciousness of that one difference until both articulations are completed; and a slip from the sound less distinctly represented in the image — either because unaccented or implosive or supported by no etymological relation, etc. — into the more distinct sound is to be expected, especially in case of fatigue, strain, haste, etc. Hence the phenomenon of assimilation (*cercher* > *chercher*, *verba* > *verva*).[7] The danger of confusion, however, is still greater when two sounds or two syllables coincide and have to be visualized together and articulated after one another. In that case the image of one of them easily crowds out the image of the other, and both speakers and hearers hardly realize that one of the repeated members has been omitted (haplology), just as in writing we sometimes leave off part of a word in similar circumstances

[6] F. de Saussure, in particular, has very opportunely emphasized this self-evident truth in his *Cours de linguistique générale*, recently published.

[7] The unavoidability of such changes is fully realized by any one who tries to pronounce several times in quick succession the following French *scie:* 'Chasseur qui chassez, sachez chasser.'

(haplography): Lat. *medidialis* > *medialis; semimodius* > *semodius; mattutinus* > Vulg. Lat. *mattinus*, etc. This may happen even if the syllables are not in immediate contact: *lapidicida* > *lapicida, latronicinium* > *latrocinium, sanguisugia* > Vulg. Lat. *sansugia*, etc.[8]

It is only natural that such eliminations occur more often when a physical difficulty is added to the mental strain, that is, when one has to deal with complicated groups of consonants quite as difficult to pronounce as to memorize or to visualize. They need a peculiarly vivid image to preside over their articulation; and precisely this is lacking when two or more sounds coincide in those units. Hence, for instance, *u̯* is lost after labial *r* in Sp. *frente*, and in Dial. Sp. *prebo*.

Hence also the reduction of the reduplication in roots beginning with a group of consonants: Lat. *spo(s)pondi, ste(s)ti, sci(s)cidi;* Gr. *ἵστημι, ἔκτημαι, ἔψευσμαι*; Skr. *tisthati*, 'he stands,' *paspaçe*, 'I have been seen.'

In the same way we have Mod. Gr. *παστρικός* for *σπαστρικός*, Swed. *korsten* for *skorsten* (=Ger. *Schornstein*), Lat. *cissura* for *scissura*,[9] Gr. *Σάπφω* for *Ψάπφω*. Similarly when we say 'Xerxes' we pronounce the first *x* like *z*.

Other difficult groups have been simplified in Lat. *praestigiae* (=*praestrigiae*), *expergescor* (=*expergriscor*); Gr. *θρέπτα* (=*θρέπτρα*), *ἔκπαγλος* (=*ἔκπλαγλος*); Fr. *érable* (=*acrem arborem*), *able* (=*alb(u)la*); O. Fr. *flambe* (=*flamble*) (*flammula*); It. *bravo* from *barb(a)rus*, etc., etc.

The consonants which have fallen out through dissimilating elision were generally in consonant groups, as in It. *propio* (*proprius*), Sp. *cribo* (=*cribrum*), Gr. *φατρία* (=*φρατρία*), Sard. *fiagare* (=*fragrare*), It. *Federico* (=Ger. *Friedrich*), Fr. *faible* (=*flebile*), Vulg. Lat. *cinque* (=*quinque*). Now, what happens with one element of a group of articulations

[8] Brugmann (*op. cit.* § 338), who also cites Gr. *ἀπολλωφανής*, Skr. *maryādā* (*maryādāyā*), Lat. *sembella*.

[9] Brugmann, *op. cit.* § 336, 5.

may quite as well happen with one of the movements in a single articulation. In other words, just as in *spr*, *scr*, *kpl*, *sp*, etc., *r*, *l*, or *s* may fail to be pronounced because at a short distance there is another *r*, *l*, or *s*, which has crowded out the former in the verbal image, so we should expect that in case two *r*'s are in the same word, or two *n*'s, or two *b*'s, etc., one movement in one of them may fail to be achieved because its image has been reduced in vividness on account of its perfect coincidence with the image of the other *r*, *n*, or *b*, and consequently the exactness of the articulation has been impaired. The element that will prove weak in that case, of course, is the movement that requires the greatest strain, the greatest tension, the greatest amount of energy. On the other hand, it may also be the more fugacious and more inconspicuous part of an articulation, such as the breath in an aspirate, the fricative of an affricate, and so forth.

Of this phenomenon we may note the following cases:

1. The loss of the *labialization*. In case of vowels, this means the failure to round the lips, as for example in the Vulgar Latin dissimilation of *o–ó* into *e–ó*: *sororem* > O. Fr. *seror; formosum* > Sp. *hermoso; rotundum* > It. *ritondo*. When *o* is changed into *u*, the dissimilated vowel is also pushed back in the mouth and becomes an *a*: Obwald. *sarur*, *anur*, *dalur*, *calur*, from *sororem*, *honorem*, *dolorem*, *colorem*. The only actual change, therefore, is the loss of the labial part of the vowel, and the dissimilation is in fact not very different from that of *au–ú* > *a–ú* produced under the same conditions (cf. *supra:* Vulg. Lat. *agustus*, *agurium*, *ascultat*).

In Prehistoric Greek a similar dissimilation has changed *u–u* into *u–i*: *ϝεϝπ* > *ϝειπ* in *εἰπεῖν* 'to speak' (cf. Skr. *avocam*); *ἀϝεϝδω* > *ἀείδω* 'I sing.' [10]

In articulating a labial nasal one may also fail to join the lips when this same movement has to be produced in a short interval: Lat. *mappa* > Fr. *nappe* 'table-cloth'; Lat.

[10] Brugmann, *op. cit.* § 334, 1.

mespilus > Fr. *nèfle* 'medlar'; O. Lat. *temefrā* > Lat. *tenebrae;* Lat. *membrum* > Sp. *niembro;* Lat. *memorare* > Sp. *nembrar.*[11]

All these delabializations are to be compared to the loss of *u* in *cinque, cerq(u)edula,* Vulg. Lat. *vivacius* > O. Fr. *viaz,* Lat. *vivenda* > Fr. *viande,* Lat. *vervactum* > Fr. *guéret,* Lat. *pavimentum* > Vulg. Lat. *paimentum,* Lat. *favilla* > Vulg. Lat. *failla,* etc.

2. The *palatalization* may disappear in the same manner. No *i* has developed after the vowel in spite of the implosive *k* in Vulg. Lat. *directiare* > O. Fr. *dressier,* Vulg. Lat. *troctare* > O. Fr. *trossier,* Lat. *intoxicare* > O. Fr. *entoschier,*[12] because there was an *i* after the following consonant. This dissimilation is even more striking in the case of a consonant which has failed to be palatalized because another palatal followed it at a short interval: Vulg. Lat. *cavea* > Fr. *cage: caveola* > *geôle* 'jail'; Vulg. Lat. *nux gallica* > O. Fr. *noix gauge* 'walnut': *gallus* > O. Fr. *jal;* Vulg. Lat. *calcatorium* > O. Fr. *cauchoir* 'wine-press'; Vulg. Lat. *caccabellus* > O. Fr. *cachevel* 'skull.'

In all these cases *c* or *g* + *a* has escaped being changed into *č* or *ǧ* in spite of the phonetic law in French. The dissimilation took place in the transition period in forms like *ki̯avi̯a, gi̯al(li)ki̯a, ki̯aka i̯bello,* etc.

3. The *fricative element* of an affricate may be absent: It. *digiuno* for *džidžuno.*

4. The *breathing of an aspirate* may be omitted. This is a well-known and a very old tendency in the Indo-European languages, especially in Sanskrit and in Greek: *τίθημι, πιφαύσκω, παμφαίνω, κιχαίνω, τριχός* : *θρίξ,* etc.; Skr. *dadhāmi, bibharti,* etc. It affects even the rough breathing resulting in Greek from initial *s*: *ἔχω* : *ἕξειν.*

The reduction of the breath in the production of a spirant may cause it to degenerate easily into an occlusive — a

[11] Baist, in Gröber, *Grund.* I, 702.

[12] Meyer-Lübke, *Hist. Gram. d. fr. Sprache,* § 230.

process very similar to the dissimilation of the aspirates. It is found especially with *v* and *b* in Vulgar Latin; *vervactum* > Sard. *barvattu*, etc. (cf. *supra*).

5. The *nasality* also may disappear, which means that one omits to drop the velum twice. With vowels, it is probably found in Popular Fr. *copain* for O. Fr *compain*. But it is much more frequent with consonants. The loss of the nasality of an *m* very normally produces a *b*, or either *w* or *f* (because *w* and *f* are continuous sounds like *m*): **himernus* > Lat. *hibernus;* I. E. *mormo* 'apparition' > Lat. *forma, formido* (cf. Gr. μορμώ 'goblin'); I. E. *murmēk* 'ant' > Lat. *formica :* Gr. μύρμηξ; Lat. *numerus* > It. *novero;* Vulg. Lat. *mammana* > Neap. *vammana;* Gall. *Cemennos* > Fr. *Cévennes;* Lat. *membrum* > O. It. *vembro*.[13]

In case of an *n*, the result is either *d* or *l*, the latter because it is voiced and continuous like *n*: Vulg. Lat. *nec ne unus* > Andalusian *dengun*, Catalan *dingun* (cf. It. *ninguno*); Lat. *venenum* > It. *veleno*, Latin-Keltic *Bononia* > It. *Bologna;* Gr. Πάνορμος > It. *Palermo;* Lat. *unicornis* > It. *licorno*. Palatal *n* gives palatal *l* in Vulg. Lat. *armeniaca* > It. *megliaca*.

6. The *sonority* of a consonant may be lost, as in the Gothic spirants *b̆*, *d̆*, *z*, in case a voiced consonant is found in the preceding syllable: *wundufni* 'wound': *fastubni* 'fasting'; *gabaurjoþus* 'lust': *wratōdus* 'journey'; *walwisōn* 'to turn'[14]: *hatizōn* 'to hate.' A similar dissimilation prevented the Latin *caesaries, miser* from following the general rule of the intervocalic *s* > *z* > *r*, and this on account of the following *r*.

7. The tension producing a very close vowel may be reduced, so that for example an *i* is changed into an *e*, being the vowel produced approximately at the same place but with less tenseness and with less raising of the tongue. This dissimilation is regular in Vulgar Latin in the case of *i–í*: Lat. *vīcīnus* > Sp. *vecino*, Fr. *voisin;* Lat. *dīvīnus* > Fr. *devin*.

[13] Grammont, *op. cit.* p. 74. [14] Brugmann, *op. cit.* § 334, 5.

This is especially frequent in Spanish: Vulg. Lat. *dīcīre* > Sp. *decir*. It has been extended in modern times to Sp. *reír* (**rīdīre*), and in the Mexican dialect to *medecina*, *vesita*, *envito*, etc.[15]

8. The *trill*, characteristic of the *r* in most languages (not English) is also very apt to slip off in the pronunciation. The failure to trill a lingual *r* gives a sound which is not far from *l* and will easily become *l* in the languages which do not possess any untrilled *r*. This dissimilation is the most frequent, and numerous instances of it have already been quoted in this article, for example, *peregrinus* > *pelegrinus*, Fr. *corridor* > Russ. *kolidor*, Gr. ἀριστερά > Mod. Gr. ἀλιστερά, etc. If the tongue falls a little more, a *d* will result: Lat. *prurire* > It. *prudere;* Lat. *rarus* > It. *rado;* Lat. *contrarius* > It. *contradio*. Sometimes, however, an *n* results: Fr. *artillerie* > Russ. *antirelja*.

9. The *click* or energetic movement of the tongue was also attenuated in Sanskrit when two so-called cerebral dentals followed one another so that one of them remained a mere dental, for example, *parinakṣati*, *pariṇaçe*.[16]

To sum up: The movements most often dissimilated are the most delicate; clear-cut distinctions, such as exist for instance between the various kinds of occlusives, are very seldom obliterated by dissimilation. Brugmann can only mention one case in Pāli, one more or less doubtful in Icelandic, and It. *stinco* from Ger. *Schinken*.[17] Sometimes It. *Otricoli* for *Ocricoli* is also mentioned. All this is very little indeed, and might perhaps be explained otherwise.

This circumstance is one more indication that dissimilation does not, as might be thought, substitute a sound for another sound often associated with it in the word image. The occlusives are so often interchanged in metathesis, as in Lat. *acetum* > Vulg. Lat. *atekum* > Ger. *Essig*, and O. H. G. *nabagēr* > *nagabēr* 'borer,' etc., that it is not to be doubted

[15] C. C. Marden, *Phonology of the Spanish Dialect of Mexico City*, § 12.
[16] Brugmann, *op. cit.* § 335. [17] *Op. cit.* § 334, 5.

that they are often combined in the word image, and the use of one for the other in the process of dissimilation would be very natural, if dissimilation were a process kindred to metathesis, replacing occlusive by occlusive, sibilant by sibilant, vowel by vowel, etc.[18] But this precisely is what dissimilation is not. It should rather be classified with haplology, of which it is a mild case, affecting only one movement in articulation.

An objection will certainly be raised against this interpretation: the loss of one movement in an articulation does not necessarily make it completely coincident with another articulation of the same language. In other words, *l* is not an *r* minus the trill; neither is it an unnasalized *n*; *v* is not an *m* that has lost its nasality, etc. This is true, but the phenomenon of sound attraction is combined with the process of dissimilation, as I conceive it. Although very frequent in languages, this phenomenon has not till now been the object of sufficient attention among philologists. It consists in the fact that rare sounds or rare groups of sounds, foreign articulations, unusual articulations due to some accident, are often replaced by the other sounds, not very different, but more familiar to the members of that linguistic community. The attention of the linguists in general has been concentrated on the speakers' part, whereas here the more active agents are the hearers. Their ear being untrained to those unusual sounds, they are bound to hear in their stead the sounds nearest to them in their normal scale of sounds; and these also are the sounds which they will use later if they have to pronounce that same word themselves.

Among numberless cases of that kind which have left traces in the languages, we may mention the use of *r* in late Gallo-Roman to render a late *dz* resulting from *di* in half-learned words such as *remedium* > *remire*, *medi(c)us* > *mire*, **grammadia* (= *grammatica*) > *grammaire*, *homicidium* > *omecire*, etc. Inversely, in late Middle French, the fashion of pro-

[18] Compare the numberless cases collected by Meringer in *Versprechen u. Verlesen*, and in *Aus dem Leben der Sprache*, *passim*.

nouncing *r* without the trill in certain social circles introduced a *z* in the word *chaise* from *chaire*. About the same time the rare diphthong *iu* of *tiule* 'tile' was absorbed by *ui* (hence Fr. *tuile*); and the rare *ew* of *ewe* 'water' was attracted by *eu* resulting from *el*+cons. (hence Fr. *eau*, like *beau*). In Vulgar Latin *ps* was often replaced by the much more common *ks*: *ipse* > *ixi* > Sp. *eje; capsa* > *caxa* > Prov. *caisso*. This possibly also explains *captivus* > *cactivus* > Fr. *chétif*. Late *ti*, as in Vulg. Lat. *cuminitiare, exquartiare, guttiare, captiare*, coming in a time when older *ti* had already been assibilated into *ts*, was attracted by *ki* and treated like it both in French and in Italian, as in It. *cominciare, squarciare, gocciare, cacciare*, Fr. *commencer, chassier*, etc.[19] In Frankish, Germanic *ft* became *cht:* Dutch *zacht, achter, hechten:* Eng. *soft, after*, Ger. *heften;* while *thl* seems to have become *chl: mathlīn* 'place of parley,' *mallum* > *Machelen* or *Mechelen*, frequent place-name in Belgium, notably for the city of *Mechlin* or *Malines*. On the other hand, Frankish *hl* was often rendered by *fl* in Old French: *Hlodberht, Hlodwig* (?), *hrīm, hrok*, by *Flobert, Flovent, frimas, freux*. The groups *kn, hn*, were enlarged into *knn, hnn*, and the unusual *n* became an *a* as in Fr. *canife*, Eng. *knife;* Fr. *hanap*, Ger. *Napf*.[20]

Knowing that such processes take place, one finds it only natural that unrounded *m* should become an *n*, untrilled *r* an *l*, unnasalized *n* an *l*, and so forth. Moreover, one understands how the reverse process is also found, although not so frequently (*l–l* becomes *r–l* in Lat. *caeruleus, caelum;* Gr. ἀργάλεος, ἄλγος; Ger. *franel;* Fr. *flanelle*). It is because an *l* without the energetic action of the tip of the tongue is much like an untrilled lingual *r*. If *l–l* becomes *n–l* in Vulg. Lat. *cuntellus* from *cultellus*, Fr. *nombril* from *l'omblil*, Sp. *puncella* from Vulg. Lat. *pullicella*, it is again by a lack of

[19] Compare my note in *T.A.P.A.* XLVII, 145.

[20] Foreigners often reduce to naught the English untrilled *r* before the consonants.

energy producing a dropping of the tip of the blade as far as the teeth or at least the gums. The only continuous sound that can be produced at that place is an *n* unless one resorts to a sibilant, too different from *l*. There is moreover a certain similarity in the type of resonance of all so-called liquids, which prepares them for their mutual interchange, so frequent in dissimilation.

It is interesting to observe that dissimilation is thus often due to a difference of energy in the production of two identical movements. We have seen this in the sounds in which the tongue plays an important part, as for instance the Sanskrit cerebrals and the lingual *r*, as well as in the resonance chamber of front vowels such as *i* and *e*. This suggests the possibility that dissimilation, caused as it is by a mental deficiency, is helped and favored by the rhythm of the language. We have seen that the dissimilated sounds are generally those that are not in the accented syllable or not supported by a preceding implosive (*peregrinus*, *veretragus*, *augústus*, *sorórem*, *vicínus*, etc.). In particular the tendency to emphasize the accented vowel must produce a slight difference in sound in words like *cerébrum*, *palánca*, *augústus*, *sorórem*, *divínus*, *farrágine*, *natále*, *gá*^{l}*ata*. This leads, in the pronunciation of certain individuals, to an extreme differentiation which cannot fail to impress the hearers, since it emphasizes better the typical vowel of the word and suppresses the imprecision concerning the other vowel. They are therefore induced to adopt instinctively clear-cut forms like *crebrum*, *planca*, *agustus*, *gauta*, with elision, and *serore*, *devinu*, *ferragine*, *notale*, with dissimilation. The proof of the actual existence of such an instinct — an instinct for what has been called, by Van Ginneken,[21] a sound accent — is easily found in the spontaneous dissimilation in onomatopoeias such as Eng. *dingdong*, *seesaw*, *chitchat*, *tiptop*, and Fr. *zigzag*, *tictac*, *bric et broc*. The same differentiation has been introduced in Eng. *shilly-shally* from *shall I*, *shall I*. Such groups are

[21] *Principes de ling. psych.* p. 391.

found in all languages. They are onomatopoeias representing movements in which the up and down of the activity is symbolized by high tone and clear vowel alternating with low tone and faint vowel.[22] Any kind of balancing or repetition may also be represented by such a series, and by those in which the alternation is expressed by a change of consonants, such as in Eng. *harum-scarum*, *heddy-giddy*, *unky-dunky*, *hodge-podge*, and Dutch *hinkepinken*, *hutseklutse*, *hakkebakken*.[23] Just as assimilation satisfies our love for alliteration, so dissimilation is apt to please our instinct for balancing rhythm (or relative alliteration). Although neither of these general tendencies has created assimilation or dissimilation, to which we have assigned another cause in this article, this study would be incomplete if this kind of influence were entirely ignored as a secondary factor, one which has undoubtedly played an important part in the process of selection by the hearers, who in the period of transition were confronted with two competing forms, one that was dissimilated, and another that was not.

In this way our hypothesis satisfies the three conditions indicated above. It takes into consideration all the cases of dissimilation occurring through elision or through change of sound, by making the latter a mere special case of the former. It also accounts for the close relationship existing between assimilation and dissimilation, by showing that those processes, which seem to be contradictory, are only different aspects of the same psychological tendency that created haplology. Finally, a reason why dissimilated forms often conquer, in spite of the law of inertia, is found in the no less important, but less apparent linguistic instinct for rhythm and differentiation.

[22] Compare also the spontaneous dissimilation in the language of children: *papa* > *pepa*, *pipi* > *pepi*, *mama* > *mema* (Grammont, *Mélanges Meillet*, p. 58).

[23] Van Ginneken, *ib.* p. 404.